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Preventing the next financial crisis while financing sustainable development: Three propositions

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The global financial crisis has critically exposed the vulnerabilities of a liberalized, privately focused financial system. Governments worldwide intervened in such a system, providing support with an unprecedented range of measures including bailouts, nationalization of distressed financial institutions, mergers and recapitalization. However, many underlying structural conditions that led to the crisis were only partially addressed, if at all. As the past months exposed the worrisome combination of increasingly unsustainable debt levels, financial market volatility and currency instabilities, concerns for the possible eruption of another financial crisis have been on the rise. Three key proposals could help preventing the next crisis while providing critical financing to sustainable development: explore the potential of development banks; restore the management of capital accounts within the standard policy toolkit of governments; and introduce a system of financial transaction taxes.

Many economists consider the global financial crisis that erupted in the United States in 2007-2008 as the worst financial crisis since the Great Depression of the 1930s. The crisis initially began in the US subprime mortgage markets but soon grew into a full-blown global crisis as shocks were transmitted globally due to financial interconnectedness. The distressed banking system caused significant damage to the real economy.

The global financial crisis has critically exposed the vulnerabilities of a liberalized, privately focused financial system. In a bank-based financial system, banks are the key financial intermediaries as they allocate funds from savers to borrowers. A sound, well-regulated banking system is a *sine qua non* for macroeconomic stability and sustained economic development.

As governments around the world pledged trillions of dollars in loans, guarantees, capital injections and other forms of assistance to rescue some of the world's biggest banks and financial institutions facing an imminent collapse, the financial crisis reignited an intense debate on the ownership structures of the banking sector and the desirability of direct state interventions in the financial sector. In many meaningful ways, the global financial crisis has challenged conventional thinking on state ownership of financial institutions and forced policy-makers to reconsider the role of the state in the financial sector, especially state ownership of banks and other forms of financial institutions.

The financial crises also exposed significant regulatory and architectural gaps, most of which remain unaddressed. The finance sector is far bigger and more interconnected today than it was before the crisis, with the significant rise of the asset management industry and the continued challenge to adequately regulate market-based finance, or 'shadow banking', in many jurisdictions. In this respect, the

1 This article is based on Singh (2018) and other opinion pieces by the author, integrated, harmonized and edited by Stefano Prato.

intergovernmentally agreed outcome of the 2019 ECOSOC Forum on Financing for Sustainable Follow-up rightly issued its call to financial regulators "to increasingly shift to looking at underlying risks associated with financial activity rather than the type of financial institution".[2]

Massive direct state interventions …

To contain the contagion effects that could seriously impair financial stability, governments worldwide intervened in the financial system, providing support with an unprecedented range of measures including bailouts, nationalization of distressed financial institutions, mergers and recapitalization. The overall objective was to avoid widespread bankruptcies in the financial sector and to restore financial stability.

During the crisis, bank bailout programmes made large amounts of public money and other forms of support available to big banks and financial institutions to contain financial panic. Some common elements in such state-led bailout programmes included: large-scale direct equity injections into banks and financial institutions; purchase of distressed ('toxic') assets by the governments; and issuance of blanket guarantees to a broad range of funding instruments including bank debt. An enormous amount of taxpayers' money was put at risk by these measures. Governments also launched large fiscal stimulus packages to boost aggregate domestic demand.

During financial restructuring, governments incurred substantial fiscal costs that were ultimately borne by taxpayers. It has been estimated that the amount of support to the systemically important financial institutions (SIFIs) was close to 25 percent of the world's GDP in November 2009.[3] In some countries, government finances came under severe pressure due to the financial support given to banks. In the case of Iceland and Ireland, a crisis that originated as a banking crisis became a sovereign debt crisis.

2 UN ECOSOC (2019).

3 Alessandri/Haldane (2009).

The 2009 Financial Stability Report of the Bank of England noted:

> In the highly unlikely event that all the facilities offered by central banks and governments were fully called upon, the scale of support to banking systems in the United Kingdom, the United States, and euro area would exceed US$ 14 trillion. This is equivalent to around 50 percent of these countries' annual GDP.[4]

It has been observed that the bulk of approved and effectively used state aid amounts were related to guarantees in the EU whereas in the USA, the Troubled Asset Relief Program (TARP) primarily comprised direct equity injections and distressed asset purchases. The TARP is the largest government bailout programme in US history.

… but ultimately business continued as usual

The overarching objectives of massive direct state interventions in the banking system were to safeguard financial stability and to encourage banks to continue lending during the crisis. Hence, several legitimate policy concerns related to substantial fiscal costs, moral hazard (encouraging excessive risk-taking by bankers as they would assume that taxpayers would pay significant losses in the future), creating an uneven playing field and distorting market incentives were overlooked by policy-makers.

After acquiring stakes in ailing banks, most governments did little to use their influence as majority shareholders to introduce fundamental changes in the way the banks did business. The public money handed over to big private banks was not fully leveraged to yield better policy outcomes such as forcing banks to change their risky business models or breaking up systemically important financial firms – also known as Too-Big-to-Fail (TBTF) institutions – into smaller, simpler entities that are easier to regulate and supervise. Needless to say, many banks are now bigger than they were in 2008, even after adjusting for inflation.

4 Bank of England (2009), p. 21.

Further, in many instances, bailout measures were not accompanied by organizational restructuring or imposing strict restrictions on dividend payments and executive compensation. For instance, close to 5,000 traders and bankers belonging to nine financial firms (including Goldman Sachs, Morgan Stanley, Citigroup and Bank of America) were awarded bonuses of more than US$ 1 million each in 2008. The nine firms paid US$ 32 billion in bonuses in 2008 while receiving US$ 175 billion in federal bailout money under the TARP during the same year.[5]

By and large, state ownership in distressed banks and financial institutions was temporary, short-term in orientation, poorly coordinated, and narrowly aimed at cleaning up their balance sheets. Public ownership was not conceived to formulate and implement relatively coherent long-term policies towards rebuilding a healthy banking system that can ensure financial stability as well as accomplish broader economic and development objectives.

Signs of instability … and the 2030 Agenda for Sustainable Development?

Room for optimism is shrinking rapidly as the past months have exposed a worrisome combination of increasingly unsustainable debt levels, financial market volatility and currency instabilities, all generating concerns for the possible eruption of another financial crisis. Despite the rhetoric of the 2030 Agenda for Sustainable Development, many policy streams continue to promote the financialization of the global economy while at the same time limiting the scope for regulatory interventions that may generate true alignment with the imperatives of sustainable development, including the strong emphasis on attracting private investment within developing economies and catalysing private finance without proper regulatory frameworks in place.

There is no denying that the private sector can make an important contribution to the realization of the SDGs, but the role of the public sector is fundamental to the delivery of public goods and services. There is a need to scale up public investment to meet SDG-generated demands for financing.

Against this background, three possible work streams could facilitate convergence between two interconnected objectives: preventing the next financial crisis and ensuring adequate financing for the pursuit of the 2030 Agenda for Sustainable Development: explore the potential of development banks; restore the management of capital accounts within the standard policy toolkit of governments; and introduce a system of financial transaction taxes.

1. Development banks: a potential game changer[6]

The global financial crisis of 2008 has brought the role of development banks (DBs) and development finance institutions (DFIs) back into the policy spotlight. Post-crisis, governments across the world are considering these institutions as a part of the countercyclical policy toolkit, in addition to recognizing their role in supporting economic development and structural transformation.

Given that private investment (both domestic and foreign) has remained muted in the aftermath of the global financial crisis, the demand for public funds has increased in developing countries. In this context, development banks can act as catalysts in mobilizing development finance and help in bridging financing gaps to achieve the SDGs. The role of development banks becomes even more critical as the development finance landscape has rapidly changed in recent years with official development assistance (ODA) remaining far short of the UN target of 0.7 percent of the gross national income of DAC countries. The prospects for achieving this target remain bleak, at least in the near future.

The unique characteristics of development banks enable them to deliver on the SDGs with their ability to raise financial resources through various sources; provide funding to projects that would not otherwise receive it; and provide technical expertise to undertake long-term development projects. Besides,

5 Freifeld (2009).

6 For more information, see Singh (2018).

their willingness and experience to incorporate environmental, social, and corporate governance (ESG) dimensions in business activities place them in a strong position to play a leading role in meeting the SDGs.

In India and elsewhere, many development banks emphasize different development challenges such as housing, agriculture, women's empowerment and small-scale industries. Some of them have successfully shown that development success can go hand in hand with financial success. Such success stories can be replicated across the world. Poor and developing countries can set up new development banks to undertake this challenging task. A development bank should not necessarily be wholly government-owned, although some level of government ownership is desirable for achieving broader social and economic objectives. Development banks can mobilize finance required for development-oriented projects by borrowing from both domestic and international capital markets. To ensure that they can raise funds at reasonably low cost, development banks can be offered direct financial support by national governments or allowed to issue tax-free bonds. Another option is to raise concessional funds from international and national development banks such as Germany's Kreditanstalt für Wiederaufbau (KfW).

Indeed, different formulas might be explored. Although development banks are financial institutions with a substantial part of their equity owned by the state, there is no precise definition of a development bank. The World Bank defines a development bank as "a bank or financial institution with at least 30 percent state-owned equity that has been given an explicit legal mandate to reach socioeconomic goals in a region, sector or particular market segment".[7] The UN defines such banks as

> financial institutions set up to foster economic development, often taking into account objectives of social development and regional integration, mainly by providing long-term financing to, or facilitating the financing of, projects generating positive externalities.[8]

Their creditworthiness is ensured due to their backing by government funds and guarantees that also enable them to raise capital from national and international markets.

Development banks are also quite different in size, ownership, funding and business activities across the world. National development banks usually operate within a country, and are relatively small in relation to other financial players. They focus on the

7 de Luna-Martinez/Vicente (2012), p. 4.
8 UN (2005), p. 11.

Box III.1

Prominent Development Banks

- KfW (Germany)
- Banco Nacional de Desenvolvimento Econômico e Social (Brazil)
- Norwegian Industrial and Regional Development Fund
- Green Investment Bank (UK)
- Industrial Development Bank of Turkey
- Agricultural Development Bank of China
- China Development Bank
- Development Bank of Japan
- Development Bank of Singapore
- Development Bank of the Philippines
- Industrial Finance Corporation of India
- Japan Bank for International Cooperation
- Korea Development Bank

promotion of the domestic economy and offer loans, equity and other financing instruments. The Small Industries Development Bank of India, the Banco Nacional de Desenvolvimento Econômico e Social (BNDES) in Brazil, and the British Business Bank are some prime examples of national development banks.

By contrast, bilateral development banks finance development projects and activities in poor and developing countries. They provide a wide range of assistance, including grants, loans, structured funds and technical advice. Examples of bilateral DBs are the Japan International Cooperation Agency and KfW in Germany. In addition, there are regional development banks (such as the African Development Bank) and multilateral development banks (such as the World Bank) performing similar functions as that of bilateral development banks. Finally, there are a number of development finance institutions (DFIs) that make investments or lend money to private sector companies in sectors or countries that are unable to attract capital (see Box III.1).

Governance matters

As many more governments are taking a fresh look at various types of state-owned financial institutions, it is essential that greater attention be paid to their governance, performance and public accountability, given their mandate to serve the public interest.

As development banking is inherently risky, state-owned banks and financial institutions face a peculiar challenge – how to remain financially viable while pursuing broader socioeconomic objectives. Some well-managed development banks often find it difficult to reconcile these conflicting objectives. However, they can face this challenging task under the right circumstances, with appropriate governance and policy frameworks (see Box III.2).

Studies on the performance of state-owned financial institutions show mixed results. Some poorly managed state-owned financial institutions failed, leading to substantial fiscal costs and poor development outcomes while some have performed spectacularly in terms of their economic sustainability as well as the fulfillment of broader development objectives.

There is no 'one-size-fits-all' model for the governance of state-owned banks and FIs as this is influenced by a wide range of factors, including a country's institutional environment and regulatory regime. As pointed out by development economists Janine Thorne and Charlotte du Toit, a state-owned financial institution is unlikely to achieve its desired

Box III.2

Transparency and Participation: Closing the Gap

As public institutions, development banks and other state-owned financial entities should follow key principles of good governance – transparency, participation, inclusion and accountability – in the conduct of their business.

Transparency in business conduct and decision-making processes can enable citizens and other stakeholders to scrutinize projects supported by development banks and hold management to account for its decisions and actions. Citizens deserve to know how development banks are conducting their business. Transparency is also central to the concept of ethical business practice. Therefore, it is imperative that all relevant information related to project lending and other activities be publicly shared through a user-friendly interface. The banks should also disclose development impact data and analysis on ex-ante projections and ex-post impact assessments.

By combining transparency with participation, state-owned financial institutions can increase engagement with stakeholders and the broader public beyond the narrow world of banking professionals. They can enable new partnerships and flow of ideas and information between the state-owned financial institutions and stakeholders to achieve continuous improvements in accountability and overall performance.

objectives if the institutional environment in a country is weak coupled with weak regulation and supervision; its mandate is not clearly defined; its staff lacks critical skills in management and operations; and there is interference by corrupt officials, board members and politicians in its business activities.[9]

First, a development bank needs an enabling environment to accomplish its desired objectives. The prospects of a 'successful' development bank tend to be bleak in countries with weak political institutions, high levels of corruption, weak rule of law, and higher macroeconomic instability.

In addition, well-functioning legal and regulatory institutions are as much a prerequisite for public-owned development banks as for the private banks.

Second, the mandate of a development bank should be clearly articulated regardless of whether it is narrow or broad. In particular, the board of directors and the executive team of a state-owned financial institution should have a clear understanding of its purpose and objectives and their role in achieving this. It is likely that the bank's mandate may change over time, but it should be clearly articulated. Otherwise, a development bank may drift away from its stated objectives, leading to undesirable outcomes.

Third, under state ownership, the government is both the owner and the regulator of banks. Therefore, the government should establish a clear ownership policy, ensuring that it will regulate state-owned financial institutions in a transparent and accountable manner, avoiding any potential conflicts of interest.

Fourth, the quality of internal governance and management systems also play an essential role in the functioning of a development bank. The board of directors and the executive team of a development bank should have relevant expertise and experience to steer and manage the bank. This is a challenging task because not all countries have a deep pool of local expertise and talent to create and run a development bank. It is essential that the board of directors should be independent and of the highest standards of competence. Even though the ownership remains with the government, the senior executive team of a state-owned bank should have operational autonomy to run the day-to-day operations of the bank. Besides, strong internal control structures should be embedded in a bank's governance system to ensure a high quality of transparency and accountability not only to the government but to all stakeholders.

Fifth, the board and senior management team should have a commitment to integrity and be held accountable for their actions by the government, regulatory agencies and the wider public.

Finally, alternative regulatory frameworks should be worked out specifically for development banks as the commercial banking regulations may not be appropriate for development banks that do not raise money from depositors.

2. Capital controls and macroprudential tools

Maintaining financial stability is a big policy challenge for all emerging economies (EME). The recent episodes of financial crisis have amply shown that even those countries that followed seemingly sound macroeconomic policies also got exposed to 'sudden stops', or large reversals in capital flows. Hence the moot question is: How should emerging country policy-makers respond to prevent rapid currency depreciation and a sudden reversal in capital flows?

To begin with, EME policy-makers should proactively enforce capital controls to stem the risks of rapid capital outflows. The orthodox view is that capital controls do more harm than good. Critics question the effectiveness of capital controls, especially on outflows. Despite the negative connotation associated with the word 'controls', there are many positive experiences of using controls on outflows as a crisis management tool. This long list includes Malaysia in 1998, Iceland in 2008, Cyprus in 2013 and China in 2016.

9 Thorne/du Toit (2009).

EME policy-makers can impose controls on both inflows and outflows of capital to insulate themselves from external shocks as well as to provide some breathing space to address longer-term structural problems. Controls on inflows can be helpful in altering their composition in favour of less risky and longer maturity flows. Brazil is a well-known case in point. During 2009-2011, Brazil adopted a series of capital controls (including a tax on portfolio investments) to discourage inflows to combat the appreciation of the *real*.

Rather than be used as a last resort and on a temporary basis, capital controls should have a place in the standard policy toolkit and could be deployed by EMEs, keeping in mind their specific policy frameworks and country contexts. Given the prevailing adverse market conditions, policy-makers should shun their rigid stance against capital controls and adopt a pragmatic approach towards managing destabilizing capital flows. Decision-making in a complex, uncertain and financially interconnected world should not be driven by outdated neoliberal orthodoxy. In parallel, EME policy-makers should also impose macroprudential policy measures (such as caps on foreign currency lending, credit controls and countercyclical capital requirements) for containing financial boom and bust cycles.

It is well recognized that policy interventions are more warranted during the boom period to limit the buildup of risk in the financial system. In this regard, it is desirable to use both capital controls and macroprudential measures in an emerging economy facing a surge of capital inflows ('sudden flood'). EME policy-makers can choose the optimal mix of capital controls and macroprudential measures in mitigating currency and financial risks.

Moreover, EME policy-makers need to stay extra vigilant about corporate debt issued in foreign currencies by non-financial corporations due to the potential risks associated with the twin currency and maturity mismatches. Overall, there is a greater need for improving financial regulation and market surveillance in EMEs.

Discourage 'hot money' flows

In the medium to long run, policy-makers in EME should concentrate on attracting long-term capital flows that improve the country's productive capacity through the transfer of technology and managerial know-how, rather than short-term volatile capital flows (such as bank lending and portfolio investments) that have tenuous linkage with the real economy and are prone to abrupt reversals. The role of short-term portfolio flows in causing or exacerbating financial crises in many EME is well documented.

It is high time that EME policy-makers rethink their approach to global financial integration, as previous experiences of financial liberalization (especially capital account liberalization) in many EMEs have proved to be costly and exposed them to financial crises of various kinds, while the actual benefits of capital account liberalization are hard to find. Particularly, the liberalization of short-term capital flows should be avoided.

International cooperation

There is no denying that EME policy-makers should adopt sound domestic policies and improve macroeconomic fundamentals, but it may not be sufficient to withstand financial shocks that EMEs are currently facing from spill-over effects[10] of monetary policy normalization in the USA and other advanced economies. Hence, there is a need for global policy coordination. Advanced economies should also realize the need for global policy coordination as increased financial market volatility can generate significant spill-back effects on their economies.

Post-crisis, the importance of a global financial safety net has been well recognized. In this regard, bilateral currency swap agreements and regional financing

10 In this context, spill-over effects refer to the impact that policies and other normative interventions taking place in one economy can have on other economies, though the term could also be used with broader meaning. Such spill-over effects can also generate a return feedback (commonly defined as spill- back effects) on the economy that initiated the policy intervention.

arrangements, such as the Chiang Mai Initiative[11] and the Contingent Reserve Arrangement,[12] can be useful in providing liquidity support when a crisis hits.

International policy cooperation is also needed to manage cross-border volatile capital flows that can create financial fragility in the EMEs. Apart from imposing capital controls within the recipient countries, there is a logical reason for imposing capital account restrictions at the source countries to manage destabilizing capital flows at both ends. While prospects of such a cooperative multilateral approach remain bleak, its potential benefits for global financial stability are enormous.

So far, the G20 has proved to be ineffective in developing a collective response to manage policy spillovers and spill-backs. As financial risks are likely to amplify in the coming months, it is critical that all G20 members cooperate to identify and manage risks collectively. Otherwise, what's the point of the G20 harping about promoting global financial stability?

3. Financial transaction taxes

The financial transaction tax is an issue that never goes off the public agenda completely. It keeps coming back to policy and political discussions in different forms in different countries. Currently, the idea of a financial transaction tax (FTT) is gaining in popularity within segments of the US Democratic Party as a policy tool to curb excessive speculation and high-frequency trading that destabilizes markets; and to generate a significant amount of revenue to finance social programmes such as free college tuition. Contrary to popular perception, financial transaction taxes are not new. Many countries including the USA, the UK, Australia, Belgium, France, India, Italy, Sweden and Taiwan have already implemented similar taxes on a variety of financial transactions with mixed outcomes.

Potential revenue from a FTT

There is no denying that the revenue potential of any financial transaction tax would depend on its specific design. However, the potential revenue that could be raised with a FTT is very large in the USA because more than US$1 trillion in stocks and bonds is traded on each business day in its financial markets. As several FTT proposals have been floated in the USA in recent years, the revenue potential estimates vary depending on the design of the FTT and modelling assumptions. Also, it is difficult to predict precisely how the behaviour of financial market participants will change due to a small transaction tax. Besides, actual revenue collections can fall short of estimates if market conditions deteriorate. Nevertheless, most estimates show that a US FTT could raise between US$ 35 billion and US$ 100 billion annually. These are not trivial amounts. A 2018 Congressional Budget Office report[13] calculated that a 0.1 percent tax on the value of securities and a 0.1 percent tax on payment flows under derivatives would increase revenues by US$ 777 billion over ten years (2019-2028), based on staff estimates of the Joint Committee on Taxation. This estimate takes into account offsets in income and payroll tax revenues.

Apart from reducing the federal budget deficit, part of proceeds of a FTT could be used to fund the Green New Deal (proposed by US Congressional Democrats), health care and other welfare programmes. Further, the FTT is a progressive way to generate tax revenues as the top 10 percent of American households own 84 percent of all stocks. Therefore, anyone concerned about the growing income and wealth inequality in the USA should welcome the financial transaction tax as it would be progressive in nature.

11 The Chiang Mai Initiative is a multilateral currency swap arrangement among the10 members of the Association of Southeast Asian Nations (ASEAN), the People's Republic of China (including Hong Kong), Japan and South Korea, launched after the 1997 Asian Financial Crisis to manage regional short-term liquidity problems and to avoid relying on the International Monetary Fund.

12 The Contingent Reserve Arrangement (CRA) was established in 2015 by the BRICS countries (Brazil, Russia, India, China and South Africa) as a framework for the provision of support through liquidity and precautionary instruments in response to actual or potential short-term balance of payments pressures.

13 Congressional Budget Office (2018).

Will the FTT drive trading away from the USA to FTT-free jurisdictions? Not necessarily. A US FTT may encourage other countries to adopt a similar tax, thereby reducing the scope of tax avoidance. As discussed below, some EU member states are supportive of implementing a FTT within the bloc. If both the USA and the EU agree on tax harmonization, international cooperation on the FTT is also feasible in the long run.

Taxing the bloated finance sector

It is widely acknowledged that the US financial sector has remained undertaxed despite achieving unprecedented growth in the last three decades. For instance, most financial services are exempted from both value-added and state-level sales taxes. The same is true of other developed countries. At its peak in 2007, the financial sector contributed 8.3 percent to US GDP and accounted for 41 percent of total corporate profits. Eleven years later, Wall Street profits are heading back to pre-crisis levels.

Strange it may sound, but too much finance could be bad for the economy as a growing body of economic literature shows that financial development benefits the economy only up to an optimal point, beyond which the costs begin to rise.[14] While analysing the relationship between financial development and growth, the IMF Staff Discussion Notes in May 2015 stated that "the effect of financial development on economic growth is bell-shaped: it weakens at higher levels of financial development".[15]

On whether real economy has benefited from the recent growth of the financial sector, Adair Turner, the then chairman of the Financial Services Authority of the UK, wrote in 2010:

> There is no clear evidence that the growth in the scale and complexity of the financial system in the rich developed world over the last 20 to 30 years has driven increased growth or stability, and it is possible for financial activity to extract rents from the real economy rather than to deliver economy value.[16]

Not only can excessive finance increase the frequency of boom-bust cycles, thereby undermining financial stability, but it can also divert resources, talent and human capital from productive sectors of the economy to the financial sector.

The 2008 financial crisis and the ensuing bank bailouts have clearly shown that the bloated financial sector can impose significant costs on the broader economy and society. Hence there is a strong rationale for seeking a "fair and substantial contribution" from the financial sector to the fiscal costs of bank bailouts.

The 2008 crisis has also raised legitimate questions about the benefits of an oversized financial industry in the USA. There is a growing consensus that a stable and well-regulated financial sector is vital for the achievement of long-term sustainable economic growth and developmental objectives. Post-crisis, there has been a great deal of discussion on curbing the short-term speculative trading in US financial markets. In this context, a financial transaction tax could be a part of the policy toolkit to dampen the unproductive parts of the financial sector.

Curbing high-frequency trading

Another key objective of a financial transaction tax is to curb high-frequency trading of doubtful social value. In the last two decades, the landscape of stock market trading has changed drastically since high-frequency trading (HFT) came into vogue during the 2000s. On Wall Street, high-frequency traders rely on high-speed connections to trading platforms, use high-powered computers to execute trading orders and take very short-term positions.

HFTs belong to a broader group of traders known as algorithmic traders. Algorithmic trading is based on a technology-driven pre-programmed mathematical

14 See, e.g., Cecchetti/Kharroubi (2012); Cecchetti/Kharroubi (2015); Sahay et al (2015).

15 Sahay et al. (2015), p. 5.

16 Turner (2010).

model that allows execution of trading orders at a very high speed (without human intervention) to benefit from the smallest movement in the prices of stocks, commodities and currencies. Computers execute the buy or sell orders, not in seconds, but in microseconds. The high-frequency traders take advantage of tiny differences in prices to book profits at the expense of retail investors with slower execution speeds.

Fears have been expressed that HFT could be a source of market instability as witnessed during the 2010 Flash Crash when a rogue algorithm sparked a sudden 9 percent fall in the Dow Jones index and wiped out nearly US$1 trillion in market value within few minutes. There are also legitimate concerns that the high trading volumes generated by HFT firms can push prices away from fundamental values.

The supporters of HFT often highlight its important role as a provider of liquidity. However, that role is increasingly being questioned by experts in light of evidence that shows that high-frequency traders can withdraw from their market-making role if the volatility rises abruptly or if they detect markets are becoming more one-sided.

As most high-frequency traders employ similar algorithms and adopt similar strategies, a simultaneous withdrawal by HFTs can pose a systemic risk to the entire market, as happened during the 2010 Flash Crash. As pointed out by Nikolaos Panigirtzoglou of JP Morgan: “A simultaneous withdrawal by HFTs not only amplifies the initial market move, but also creates step changes or gapping markets as liquidity provision gets impaired and quotes are withdrawn.”[17]

In a relevant research paper, Didier Sornette and Susanne von der Becke of ETH Zurich noted: “HFT provides liquidity in good times when it is perhaps least needed and takes liquidity away when it is most needed, thereby contributing rather than mitigating instability.”[18]

After the 2010 flash crash, regulatory authorities in the USA and Europe have introduced new measures (such as circuit breakers) to regulate harmful HFT. A financial transaction tax could also complement such regulatory measures to rein in high-frequency trading in the US markets. An FTT will make transactions with a shorter time horizon costlier, hence curbing aggressive short-term trading that benefits high-frequency traders more than ordinary investors.

What is good for high-frequency traders is not necessarily good for ordinary investors.

Europe leads the way

In the aftermath of the 2008 financial crisis, the idea of introducing a financial transaction tax has gained momentum in Europe.

After the G20 leaders failed to endorse an FTT for raising new resources for poor countries, the European Commission in 2011 proposed a European Union financial transaction tax (EU FTT) that would apply to all financial transactions, except bank loans and primary markets. The base of the proposed EU FTT is very broad covering a wide range of financial instruments and transactions such as securities, derivatives, repurchasing agreements (repos) and money market instruments. Under this proposal, the trading of shares and bonds would be taxed at a rate of 0.1 percent while derivative contracts would be taxed at a rate of 0.01 percent. Further, the FTT would have to be paid if only one party to the transaction is located in the EU.

The proposed tax was supposed to be launched in January 2014, but it got postponed several times due to lack of unanimity among all EU member states on how this tax would be implemented. In 2013, an attempt was made to introduce an FTT in 11 member states through the instrument of ‘enhanced cooperation’. After that, the UK’s vote in the 2016 referendum to leave the European bloc has further delayed this process.

It is important to note that some member states such as France, Belgium, Italy and Greece have already introduced a tax on financial transactions within

17 Quoted in Durden (2016).

18 Sornette/von der Becke (2011).

their jurisdictions. France introduced a FTT on equities in August 2012 while Italy introduced it in March 2013. These member states have confirmed their commitment to introducing an EU-wide FTT, despite strong opposition from European financial firms and some member states, such as the UK and Sweden.

In the coming years, the FTT is likely to remain on the EU agenda even though the bloc is currently grappling with the potential Brexit fallout.

Financial transaction taxes in India: alive and kicking

India introduced a securities transaction tax (STT) on stock market transactions in 2004 and based on its success, a commodity transaction tax (CTT) on trading of non-agricultural commodity futures contracts in 2013. From 2018 onwards, the CTT has also been imposed on commodity options contracts which were introduced in the Indian markets.

In a recent op-ed article in the *Financial Times*, Kirsten Wegner, chief executive of Modern Markets Initiative, an advocacy group sponsored by high-frequency traders, claimed that India's experiment with the FTT had failed badly.[19]

Contrary to Wegner's assertion, financial transaction taxes are alive and kicking in India. From a revenue generation perspective, India's STT has been a success story with an average collection of US$1 billion for the past eight fiscal years. During 2017-2018, the STT collection touched Rs.118 billion (US$ 1.6bn), not a trivial amount in a country with a narrow tax base.

The Indian experience shows that both transaction taxes are an efficient instrument of tax collection as the tax is collected by the exchanges which then pay it to the exchequer, thereby overcoming cumbersome bureaucratic processes.

Some of the concerns raised by the critics of India's financial transaction taxes have not yet materialized in the Indian markets. The critics had anticipated a lower trading volume would reduce liquidity, and thereby market quality. There is no evidence to suggest that the transaction taxes have triggered a liquidity squeeze in the Indian markets.

Wegner refers to a fall in trading volume in the Indian commodity markets during 2013-2014 and puts the blame solely on the CTT. There is no denying that the commodity trading volume dropped during 2013-2014, but the principal reason behind the drop was the Rs.6 billion payment scam that broke out at National Spot Exchange Limited in July 2013, not the CTT of 0.01 percent as Wegner argues. In this scam, some 200 big commodity brokers were alleged to have colluded with the exchange to defraud investors. Since 2017, trading volumes and liquidity at the Indian commodity exchanges have gone up despite the CTT.

Besides broadening the taxation of the financial sector, these taxes can enable Indian authorities to trace certain transactions that undermine market integrity. The transaction taxes could be particularly valuable to the authorities as alternative mechanisms to track the flow of illicit money into the Indian financial markets are weak. Besides, a centralized database of money flows helps fill the large information gaps about the real ownership of financial assets.

Is the FTT a silver bullet?

Of course, a FTT is not a panacea to resolve all the ills plaguing Wall Street, but its potential to raise substantial tax revenues and to curb high-frequency trading of doubtful social value cannot be overlooked.

The success of a FTT in the USA would largely depend on the design of the tax. The tax should be levied widely, covering a wide range of financial instruments, transactions and institutions to prevent tax avoidance. The US authorities need to design the FTT in such a manner that maximizes revenue and minimizes distortions. Achieving multiple policy objectives through a FTT will always be a balancing act. To make it effective and responsive, the proposed FTT may need additional fine tuning as nowadays market conditions change rapidly.

19 Wegner (2019).

The USA is in an advantageous position as it can learn from different countries' experiences (both positive and negative) with the STT. It can design the proposed tax based on some successful examples while avoiding the design flaws of the Swedish FTT.

If carefully designed, and used in conjunction with other regulatory measures, a FTT has the potential to rein in the casino mentality and short-term orientation that characterize the US financial markets.

Conclusion

Going forward, it is clear that unprecedented financial market volatility lies ahead. Macro risks are likely to dominate the global financial markets in the coming months. Foreign investors are fleeing emerging markets amidst fears of a prolonged trade war between the USA and China. Currently emerging market economies are facing several headwinds, including the slowdown in advanced economies; weakening of world trade growth; tightening of global financial conditions; and rising political and policy uncertainty in key EMEs such as Argentina and Brazil. On the other hand, growth in all major developed economies is projected to slow down significantly in the next two years.

The time is ripe for a well-coordinated global policy response to address this challenging macroeconomic landscape as well as to resolve trade disputes cooperatively. Unfortunately, the current global political environment is not conducive to enhancing international cooperation and policy coordination. In many important ways, all these developments spell bad news for the achievement of the 2030 Agenda as its goals can only be realized through the mobilization of additional financial resources and strong global partnerships.

In this emerging scenario, national policy-makers should remain vigilant and be prepared to respond to risks emanating from simmering trade conflicts, further financial tightening, a no-deal Brexit and heightened political uncertainty due to the rise in populism and anti-establishment politics worldwide.

The 2008 financial crisis has been unprecedented in terms of its scale and the speed at which it unfolded and engulfed the world economy. Hence, policy-makers should not wait until the risks transform into a full-fledged systemic financial crisis. The earlier policy-makers identify macroeconomic risks, the more effective their policy actions are likely to be.

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